RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	_10/519.083
Source:	PUTIO
Date Processed by STIC:	1/10/05

ENTERED



PCT

RAW SEQUENCE LISTING DATE: 01/10/2005
PATENT APPLICATION: US/10/519,083 TIME: 15:45:00

Input Set : A:\004974.01057 sequence listing.txt.TXT

Output Set: N:\CRF4\01102005\J519083.raw

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4 <110> APPLICANT: Bayer AG
              Bayerwerk
              51368 Leverkusen
      6
      8 <120> TITLE OF INVENTION: Regulation of Human Receptor Tyrosine Kinase MerTK
    10 <130> FILE REFERENCE: Lio496 WO
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/519,083
C--> 12 <141> CURRENT FILING DATE: 2004-12-23
     12 <150> PRIOR APPLICATION NUMBER: US 60/391,933
     13 <151> PRIOR FILING DATE: 2002-06-28
     15 <150> PRIOR APPLICATION NUMBER: US 60/432,669
     16 <151> PRIOR FILING DATE: 2002-12-12
     18 <160> NUMBER OF SEQ ID NOS: 21
     20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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     24 <212> TYPE: DNA
     25 <213> ORGANISM: Homo sapiens
    27 <220> FEATURE:
     28 <221> NAME/KEY: CDS
     29 <222> LOCATION: (101)...(3151)
     31 <400> SEQUENCE: 1
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     33 ccatccgtcc ggagagaaat tacagatccg cagccccggg atg ggg ccg gcc ccg
                                                     Met Gly Pro Ala Pro
     35
     37 ctg ccg ctg ctg ctg ggc ctc ttc ctc ccc gcg ctc tgg cgt aga gct
                                                                           163
     38 Leu Pro Leu Leu Gly Leu Phe Leu Pro Ala Leu Trp Arg Arg Ala
                                             15
                         10
     41 atc act gag gca agg gaa gaa gcc aag cct tac ccg cta ttc ccg gga
                                                                           211
     42 Ile Thr Glu Ala Arg Glu Glu Ala Lys Pro Tyr Pro Leu Phe Pro Gly
                                         30
     43
                     25
     45 cct ttt cca ggg agc ctg caa act gac cac aca ccg ctg tta tcc ctt
                                                                           259
     46 Pro Phe Pro Gly Ser Leu Gln Thr Asp His Thr Pro Leu Leu Ser Leu
                                     45
     49 cct cac gcc agt ggg tac cag cct gcc ttg atg ttt tca cca acc cag
                                                                           307
     50 Pro His Ala Ser Gly Tyr Gln Pro Ala Leu Met Phe Ser Pro Thr Gln
                                 60
     53 cct gga aga cca cat aca gga aac gta gcc att ccc cag gtg acc tct
                                                                           355
     54 Pro Gly Arg Pro His Thr Gly Asn Val Ala Ile Pro Gln Val Thr Ser
                             75
     55 70
                                                                           403
     57 gtc gaa tca aag ccc cta ccg cct ctt gcc ttc aaa cac aca gtt gga
     58 Val Glu Ser Lys Pro Leu Pro Pro Leu Ala Phe Lys His Thr Val Gly
                         90
     59
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Input Set : A:\004974.01057 sequence listing.txt.TXT
Output Set: N:\CRF4\01102005\J519083.raw

		•															
61	cac	ata	ata	ctt	tct	gaa	cat	aaa	ggt	gtc	aaa	ttt	aat	tgc	tca	atc	451
62	His	Ile	Ile	Leu-	Ser	Glu	His	Lys	Gly	Val	Lys	Phe	Asn		Ser-	Ile	
63				105					110					115			
65	agt	gta	cct	aat	ata	tac	cag	gac	acc	aca	att	tct	tgg	tgg	aaa	gat	499
66	Ser	Val	Pro	Asn	Ile	Tyr	Gln	Asp	Thr	Thr	Ile	Ser		\mathtt{Trp}	Lys	Asp	
67			120					125					130				
69	999	aag	gaa	ttg	ctt	ggg	gca	cat	cat	gca	att	aca	cag	ttt	tat	cca	547
70	Gly	Lys	Glu	Leu	Leu	Gly	Ala	His	His	Ala	Ile	Thr	Gln	Phe	Tyr	Pro	
71		135					140					145					
73	gat	gat	gaa	gtt	aca	gca	ata	atc	gct	tcc	ttc	agc	ata	acc	agt	gtg	595
74	Asp	Asp	Glu	Val	Thr	Ala	Ile	Ile	Ala	Ser	Phe	Ser	Ile	Thr	Ser	Val	
75	150					155					160					165	
77	cag	cgt	tca	gac	aat	ggg	tcg	tat	atc	tgt	aag	atg	aaa	ata	aac	aat	643
78	Gln	Arg	Ser	Asp	Asn	Gly	Ser	Tyr	Ile	Cys	Lys	Met	Lys	Ile	Asn	Asn	
79				_	170	_				175					180		
81	gaa	qaq	atc	qtg	tct	gat	ccc	atc	tac	atc	gaa	gta	caa	gga	ctt	cct	691
82	Ğlu	Glu	Ile	Val	Ser	Asp	Pro	Ile	Tyr	Ile	Glu	Val	Gln	Gly	Leu	Pro	
83				185		_			190			•		195			
85	cac	ttt	act	aag	cag	cct	gag	agc	atg	aat	gtc	acc	aga	aac	aca	gcc	739
86	His	Phe	Thr	Lys	Gln	Pro	Glu	Ser	Met	Asn	Val	Thr	Arg	Asn	Thr	Ala	
87			200	•				205					210				
89	ttc	aac	ctc	acc	tqt	cag	gct	gtg	ggc	ccg	cct	gag	CCC	gtc	aac	att	787
90	Phe	Asn	Leu	Thr	Cys	Gln	Āla	Val	Gly	Pro	Pro	Glu	Pro	Val	Asn	Ile	
91		215			-		220		_			225					
	ttc		att	caa	aac	aqt	aqc	cgt	gtt	aac	gaa	cag	cct	gaa	aaa	tcc	835
94	Phe	Trp	Val	Gln	Asn	Ser	Ser	Arg	Val	Asn	Glu	Gln	Pro	Glu	Lys	Ser	
	230					235		_			240					245	
	CCC	tcc	ata	cta	act	qtt	cca	ggc	ctg	acg	gag	atg	gcg	gtc	ttc	agt	883
98	Pro	Ser	Val	Leu	Thr	Val	Pro	Gly	Leu	Thr	Glu	Met	Ala	Val	Phe	Ser	
99					250			-		255					260		
	1 ta	t ga	a ac	c ca	c aa	t qa	c aaa	a qgg	g ct	gac	c gt	g tc	aag	g gga	gt	g cag	931
10	2 Cv	s Gl	u Al	a Hi	s As:	n Ası	o Ly	s Gly	Lei	ı Th	r Va	l Ser	r Lys	Gly	y Vai	l Gln	
10	_			26			•	-	27					27			
10	5 at	c aa	c at	c aa	a qc	a at	t cc	c tc	c cc	a cc	a act	t gaa	a ato	age	ate	c cgt	979
10	6 Il	- Δg	n T1.			1		_					- 3-				
				еьи	s Al	а тт	e Pro	o se:	r Pro	o Pro	o Th	r Gli	ı Va	L Sei	r Ile	e Arg	
10		C 110			s Al	a 110	e Pro	o Se: 28!		o Pro	o Th:	r Gli	va: 290	l Se	r Ile	e Arg	•
10 10	7		28	0				28	5	o Pro	o Th:	r Glı	. Va 290	L Sei	r Ile	e Arg	1027
10	7 9 aa	c aq	28 c ac	0 t gc	a ca	c ag	c at	28! t ct	5 g ate	o Pro	o Th: c tg:	r Glu g gti	Val 290 c cct	l Sei) c ggt	r Ile	e Arg	1027
10 11	7 9 aa 0 As:	c ag n Se	28 c ac r Th	0 t gc	a ca	c ag	c at	28! t cte e Lei	5 g ate	o Pro	o Th: c tg:	r Glu g gti	Vai 290 t cct l Pro	l Sei) c ggt	r Ile	e Arg	1027
10 11 11	7 9 aa 0 As: 1	c ag n Se 29	28 c ac r Th 5	0 t gc r Al	a ca a Hi	c ag s Se:	c at r Ile 30	28! t ctg e Lei 0	g ato	o Pro c to e Se	o Thi c tgg r Tr	r Gli g gti p Vai 30!	Vai 290 c cct l Pro	Ser ggt Gl	t tti	e Arg	1027
10 11 11	7 9 aa 0 As: 1 3 qq	c ag n Se 29 a ta	28 c ac r Th 5 c tc	0 t gc r Al	a ca a Hi q tt	c ages	c ato r Ilo 300 g aao	28! t ctq e Lei 0 t tge	g ato	c to e Se	o Thi c tgg r Trj t cag	g gti p Vai 309 g gto	Vai 290 c cct l Pro 5 c aag	Sei ggt Gly	t tt: y Pho	e Arg t gat e Asp t gat	
10 11 11 11	7 9 aa 0 As: 1 3 gg: 4 Gl:	c ag n Se 29 a ta y Ty	28 c ac r Th 5 c tc	0 t gc r Al	a ca a Hi q tt	c ages seconds	c ato r Ilo 30 g aao g Aso	28! t ctq e Lei 0 t tge	g ato	c to e Se	o Thi c tgg r Trj t cag	g gti p Vai 30! g gto n Vai	Vai 290 c cct l Pro 5 c aag	Sei ggt Gly	t tt: y Pho	e Arg	
10 11 11 11 11	7 9 aa 0 As: 1 3 gg 4 Gl; 5 31	c ag n Se 29 a ta y Ty 0	28 c ac r Th 5 c tc r Se	0 t gc r Al c cc r Pr	a ca a Hi g tt o Ph	c ages second ages ages ages ages ages ages ages ages	c ati r Ilo 30 g aa g Asi	28! t ctg e Len 0 t tgg n Cys	g ate u Ile c age s Se:	o Processor Secondary	t case Gl:	g gti p Vai 30! g gto n Vai	Value Va Company value V	Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser	t tt: y Pho a gc	t gat e Asp t gat a Asp 325	
10 11 11 11 11 11	7 9 aa 0 As: 1 3 gg: 4 Gl: 5 31 7 cc:	c ag n Se 29 a ta y Ty 0 q ct	28 c ac r Th 5 c tc r Se	0 t gc r Al c cc r Pr t aa	a ca a Hi g tt o Ph	c age c age c age and	c attraction at the state of th	28! t ctg e Lei t tge n Cys	g ato g ato g ago s Second	c tce e See c at r Il	c tgg r Try t cag e Gl: 32	g gtt p Val 30! g gtc n Val 0	290 t cct l Pro c aag l Lys	Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser	t tt: y Pho a gc: i Alc c tt:	t gat e Asp t gat a Asp 325 a cca	1075
10 11 11 11 11 11 11	7 9 aa 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	c ag n Se 29 a ta y Ty 0 q ct	28 c ac r Th 5 c tc r Se	0 t gc r Al c cc r Pr t aa	a ca a Hi g tt o Ph t gg n Gl	c ages second ages ages ages ages ages ages ages ages	c attraction at the state of th	28! t ctg e Lei t tge n Cys	g ato g ato g ago s Second	c tce e See c at r Il	c tgg r Tr t cag e Gl: 32 t aa e As	g gtt p Val 309 g gtc n Val 0	290 t cct l Pro c aag l Lys	Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser	t tt: y Pho a gc: i Alc c tt:	t gat e Asp t gat a Asp 325 a cca u Pro	1075
10 11 11 11 11 11 11	7 9 aa. 0 As: 1 3 gg. 4 Gl. 5 31 7 cc. 8 Pr. 9	c ag n Se 29 a ta y Ty 0 g ct o Le	28 c ac r Th 5 c tc r Se g ag u Se	t gc. r Al. c cc. r Pr. t aa r As	a ca a Hi g tt o Ph t gg n Gl 33	c agg c agg e Arg 31 c tc y Se	c atr r Ilo 30 g aar g As: 5 a gto	28! t ctg e Lei 0 t tgg n Cyg c atg	g ato Ilo c ago s Se: g ato	c tce e Se c at r Il t tt e Ph	c tgg r Tr t cag e Gl: 32 t aa e As:	g gtt p Val 30! g gtc n Val 0 c acc n Th:	290 t cct l Pro c aag l Lys c tct r Se:	l Ser) c ggf c Gly gaa gaa c Glo c gcc r Ala	t tt: y Pho a gc: i Ali c tt: 34	t gat e Asp t gat a Asp 325 a cca u Pro	1075
10 11 11 11 11 11 11 11	7 9 aa 0 As: 1 3 gg: 4 Gl: 5 31 7 cc: 8 Pr: 9 1 ca	c ag n Se 29 a ta y Ty 0 g ct o Le	28 c ac r Th 5 c tc r Se g ag u Se	t gc. c cc. r Pr. t aa r As	a ca a Hi g tt o Ph t gg n Gl 33 a at	c agg c agg e Arg 31 c tc y Se 0	c atr r Ilo 30 g aar g Asr a gto a gto	28! t ctg e Len 0 t tgg n Cya c atg	g atomic agos Secondary	c tce c se c at r Il t tt e Ph 33 a gc	c tgg c tri t cag e Gl: 32 t aa e As: c ctg	g gtt g gtt g Val g gtc n Val c acc n Th:	290 t cct l Pro c aag t Lys c tct r Ses	Ser Description of Gly grades of Gly crantal	t tti y Pho a gc: 1 Alo c tto 34 c ago	t gat e Asp t gat a Asp 325 a cca u Pro c att	1075 1123
10 11 11 11 11 11 11 11 12 12	7 9 aa. 0 As: 1 3 gg. 4 Gl. 5 31 7 CC 8 Pr. 9 1 ca 2 Hi	c ag n Se 29 a ta y Ty 0 g ct o Le	28 c ac r Th 5 c tc r Se g ag u Se	0 t gc r Al c cc r Pr t aa r As c ca r Gl	a ca a Hi g tt o Ph t gg n Gl 33 a at n Il	c agg c agg e Arg 31 c tc y Se 0	c atr r Ilo 30 g aar g Asr a gto a gto	28! t ctg e Len 0 t tgg n Cya c atg	g ato g ato c ago s Se: g ato t Ilo g can u Gl:	c tce e Se c at r Il t tt e Ph 33 a gc n Al	c tgg c tri t cag e Gl: 32 t aa e As: c ctg	g gtt g gtt g Val g gtc n Val c acc n Th:	290 t cct l Pro c aag t Lys c tct r Ses	Ser Description of Gly grades of Gly crantal	t tto y Pho a gcu Ala c tto a Lec 34 c ago	t gat e Asp t gat a Asp 325 a cca u Pro	1075 1123
10 11 11 11 11 11 11 12 12	7 9 aa 0 As: 1 3 gg 4 Gl 5 31 7 cc 8 Pr 9 1 ca 2 Hi 3	c ag n Se 29 a ta y Ty 0 g ct o Le t ct s Le	28 c ac r Th 5 c tc r Se g ag u Se g ta u Ty	0 t gc r Al c cc r Pr t aa r As c ca r Gl	a ca a Hi g tt o Ph t gg n Gl 33 a at n Il	c age c age c age e Are 31 c tc y Se c age c tc	c atr 30 g aa g As: 5 a gtc r Va g cag s G1:	28: t ctg e Le o t tg n Cy c atg l Me g ctg n Le	g ato g ato c ago s Se: g ato t Ilo g can u Gl: 35	c tc c tc c se c at r Il t tt e Ph 33 a gc n Al	c tgg c tri t cag e Gli 32 t aaa e As: c ctg	g gti p Val 30! g gto n Val 0 c acc n Th: g gci u Al	290 to cot l Pro cot l Pro cot l Ly:	Ser O Gly G Gly G Gly G Gas G Gly G Gas G Gly G	t tt: Y Pho a gc: 1 Al: 2 tt: 34 c ag: 5	t gat e Asp t gat a Asp 325 a cca u Pro c att	1075 1123

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Gly	Val		Cys	Met	Asn	Glu		Gly	Trp	Ser	Ala		Ser	Pro	Trp	
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Ile	Leu	Ala	Ser	Thr	Thr	Glu	Gly	Ala	Pro	Ser	Val	Ala	Pro	Leu	Asn	
	375					380										
qtc	act	gtg	ttt	ctg	aat	gaa	tct	agt	gat	aat	gtg	gac	atc	aga	tgg	1315
Val	Thr	Val	Phe	Leu	Asn	Glu	Ser	Ser	Asp	Asn	Val	Asp	Ile	Arg	Trp	
					395					400					405	
ata	aag	cat	cca	act	aaq	caq	caq	gat	qqa	gaa	ctg	gtg	ggc	tac	cgg	1363
Met	Lvs	Pro	Pro	Thr	Lvs	Gln	Gln	Asp	Glv	Glu	Leu	Val	Gly	Tyr	Arg	
ricc	Ly 5				-1-				415				•	420		
a+ a	tac	cac	ata		cad	agt	gca	aaa	att	t.cc	aaa	gag	ctc	ttq	gag	1411
Tla	COT	Uic	773 173	Trn	Gln	Ser	Δla	Glv	Tle	Ser	Lvs	Glu	Leu	Leu	Glu	
116	SET	птэ		тър	GIII	501					-1-		435			
		~~~		-a+	aaa	200	cas		caa	atc	tet	att		atc	cac	1459
gaa	guu	ggc	cag	aat Aan	990	agc cor	7xa	712	Ara	Tle	Ser	Val	Gln	Val	His	
GIU	vai		GIII	ASII	GIY	SET		AIG	my	110	501					
								~~~	~~~	ata	200		aaa	aaa	att	1507
aat	gct	acg	tgc	aca	grg	agg	TIO	yca N1a	712	Val	Thr	Ara	232	Glv	Val	250,
Asn		Thr	Cys	Thr	vai		TIE	AIA	ATA	val		nr 9	Gry	O13	741	
										-+-		~~~	a 2 a	aat	taa	1555
ggg	CCC	ttc	agt	gat	cca	gtg	aaa	ata	בלנ	atc	Dwo	gca Nla	uia	Glv	Trn	1333
	Pro	Phe	Ser	Asp		vaı	ьys	iie	Pne		PIO	міа	птъ	Gry	115	
470														~		1603
gta	gat	tat	gcc	ccc	tct	tca	act	ccg	gcg	CCL	ggc	aac	yca 31-	yat	Dwo	1003
Val	Asp	Tyr	Ala		Ser	Ser	Thr	Pro		Pro	GIY	Asn	Ala	Asp	PIO	
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Ile	Leu	Tyr	Ile	Ser	Leu	Ala	Ile	Arg	Lys	Arg	Val		GIu	Thr	гля	
		520														
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Phe	Gly	Asn	Ala	Phe	Thr	Glu	Glu	Asp	Ser	Glu	Leu	Val	Val	Asn	Tyr	
	535					540										
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Ile	Ala	Lys	Lys	Ser	Phe	Cys	Arg	Arg	Ala	Ile	Glu	Leu	Thr	Leu	His	
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Ser	Leu	Gly	Val	Ser	Glu	Glu	Leu	Gln	Asn	Lys	Leu	Glu	Asp	Val	Val	
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Ile	Asp	Arq	Asn	Leu	Leu	Ile	Leu	Gly	Lys	Ile	Leu	Gly	Glu	Gly	Glu	
	_											-	595			
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Phe	Glv	Ser	Val	Met	Glu	Ğlv	Asn	Leu	Lys	Gln	Glu	Asp	Gly	Thr	Ser	
	1					- 2			-			610	_			
cta	222			ata	aad	acc			tta	qac	aac	tct	tca	cag	cgg	1987
Len	Tave	บลไ	Ala	رور Val	Lvs	Thr	Met	Lvs	Leu	Asp	Asn	Ser	Ser	Gln	Arg	
πeα	пåэ	Val	nia		-75			-10							_	
	att Ile gtc Val 390 atg Met ata Ile gaa Glu aat Asn gggy 470 gta Val gtg Val atte the atle ttphe atle ttphe ctg	att cta Ile Leu 375 gtc act Val Thr 390 atg aag Met Lys ata tcc Ile Ser gaa gtt Glu Val aat gct Asn Ala 455 ggg ccc Gly Pro 470 gta gat Val Asp gtg ctc Val Leu att tta Ile Leu ttt ggg Phe Gly ata gca Ile Ala 550 agc ttg Ser Leu att gac Ile Asp ttt ggg Phe Gly ctg aaa	att cta gcc Ile Leu Ala 375 gtc act gtg Val Thr Val 390 atg aag cct Met Lys Pro ata tcc cac Ile Ser His gaa gtt ggc Glu Val Gly 440 aat gct acg Asn Ala Thr 455 ggg ccc ttc Gly Pro Phe 470 gta gat tat Val Asp Tyr gtg ctc atc Val Leu Ile att tta tac Ile Leu Tyr gtg ctc atc Val Leu Ile att tta tac Ile Leu Tyr 520 ttt ggg aat Phe Gly Asn 535 ata gca aag Ile Ala Lys 550 agc ttg gga Ser Leu Gly att gac agg Ile Asp Arg ttt ggg tct Phe Gly Ser 600 ctg aaa gtg	att cta gcc agc Ile Leu Ala Ser 375 gtc act gtg ttt Val Thr Val Phe 390 atg aag cct ccg Met Lys Pro Pro ata tcc cac gtg Ile Ser His Val gaa gtt ggc cag Glu Val Gly Gln 440 aat gct acg tgc Asn Ala Thr Cys 455 ggg ccc ttc agt Gly Pro Phe Ser 470 gta gat tat gcc Val Asp Tyr Ala gtg ctc atc atc Val Leu Ile Ile 505 att tta tac atc Ile Leu Tyr Ile 520 ttt ggg aat gca Phe Gly Asn Ala 535 ata gca aag aaa Ile Ala Lys Lys 550 agc ttg gga gtc Ser Leu Gly Val att gac agg att Ile Asp Arg Asn 585 ttt ggg tct gta Phe Gly Ser Val 600 ctg aaa gtg gca	360 att cta gcc acg acg Ile Leu Ala Ser Thr 375 gtc act gtg ttt ctg Val Thr Val Phe Leu 390 atg acg act Atg aag cct ccg act Met Lys Pro Pro Thr 410 ata tcc cac gtg tgg Ile Ser His Val Trp 425 gaa gtt ggc cag aat Glu Val Gly Gln Asn 440 aat gtc cac Asn Ala Thr Cys Thr 455 ggg cca tga aca Asn Ala Thr Cys Thr 455 ggg ccc ccc Val Asp Tyr Ala Pro 470 gtt t	att cta gcc agc acg act Ile Leu Ala Ser Thr Thr	att cta gcc agc acg act gaa Ile Leu Ala Ser Thr Thr Glu gtc act gtg ttt ctg aat gaa val Thr Val Phe Leu Asn Glu 390 aag cct ccg act aag cag Met Lys Pro Pro Thr Lys Gln atg aag cct cag agt cag agt Ile Ser His Val Trp Gln Ser gaa gtt ggc cag agt agg agg Glu Val Thr Cys Thr Val Arg Asn Ala P	360 — 365 att cta gcc agc acg act gaa gga Ile Leu Ala Ser Thr Thr Glu Gly 375 ser ttt ctg aat gaa tct Val Thr Val Phe Leu Asn Glu Ser 390 aag cct ccg act aag cag cag Met Lys Pro Pro Thr Lys Gln Gln atg aag cct ccg act aag cag cag Att cc cag gtg cag agt gca Glu Val Gly Gln Asn Gly Ser Ala 425 aca gtg cag agt cga Glu Val Gly Gly Ser Arg Glu Pro Phe Ser Asp Pro Val Lys ggg<	att cta gcc agc act gaa gga gcc Ile Leu Ala Ser Thr Thr Glu Gly Ala gcc act gta tct act act agt gcc agt Val Thr Val Phe Leu Asa Glu Ser Ser 390 395 395 395 395 395 395 396 397 365 397 380 395 3	att cta gcc agc agc acg acg acg acg agc cca acg acg acg acg agc agc agc agc agc agc	att cta gcc agc acd act gaz ggz ccc cca tca ggg tca tca gga act cca gga gga gga gaa aaa caaa gga gga gga gaa gga gga gaaa gga gaaa gga gaaa gga gaaa gga gaaa gga gaaaa gga gaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	att cta gcc agc agc aga gac gcc cca tca gta gac gcc cca tca gta gac gcc cca tca gta gac gcc cca tca gac gac gcc cca gac gac <td>att cta gcc agc acc gac gga gga gcc cca cca gta gga gtc act ggt ttt ctg aat gaa cca gta gga gtc act gtg ttt ctg aat gaa ctc ser s</td> <td>att cta gca agc act gaa gga gg gc cca tca gta gga gg gc cca tca gta gga cct cca cta gta gaa cct cca rasp val Ala Pro Ser Val Ala Pro ser Val Ala Pro ser val Ala Pro pro atc asg cct cat atc atc asg cat atc atc atc atc atc atc atc atc atc atc atc atc atc atc atc</td> <td>360 365 370 att cta gcc agc agc agc agc agc agc agc gar gcc cat gtg tt ctg aat gaa tyal gaa ctg gtg tt ctg aat gaa tct agt gat agt gag gac at agg gar gar agg gac act gtg gtg car aat gag aga ctg gtg aga aat gag gag aga ctg gtg gac at aga gag gag aga ctg gtg gac at aga gag gag aga ctg gtg ggc tac met Lys Pro Pro Thr Lys Gln Gln Asp Gly Glu Leu Val Gly Tyr 410 400 ata t cc cac gtg tgg cag agt gar gar gag gat tcc aag gat gtg gac aga gtg ggc aga ggc ggc aga ggc gg ggc aga ggc ggc</td> <td> Second S</td>	att cta gcc agc acc gac gga gga gcc cca cca gta gga gtc act ggt ttt ctg aat gaa cca gta gga gtc act gtg ttt ctg aat gaa ctc ser s	att cta gca agc act gaa gga gg gc cca tca gta gga gg gc cca tca gta gga cct cca cta gta gaa cct cca rasp val Ala Pro Ser Val Ala Pro ser Val Ala Pro ser val Ala Pro pro atc asg cct cat atc atc asg cat atc atc atc atc atc atc atc atc atc atc atc atc atc atc atc	360 365 370 att cta gcc agc agc agc agc agc agc agc gar gcc cat gtg tt ctg aat gaa tyal gaa ctg gtg tt ctg aat gaa tct agt gat agt gag gac at agg gar gar agg gac act gtg gtg car aat gag aga ctg gtg aga aat gag gag aga ctg gtg gac at aga gag gag aga ctg gtg gac at aga gag gag aga ctg gtg ggc tac met Lys Pro Pro Thr Lys Gln Gln Asp Gly Glu Leu Val Gly Tyr 410 400 ata t cc cac gtg tgg cag agt gar gar gag gat tcc aag gat gtg gac aga gtg ggc aga ggc ggc aga ggc gg ggc aga ggc ggc	Second S

Input Set: A:\004974.01057 sequence listing.txt.TXT Output Set: N:\CRF4\01102005\J519083.raw

191		615					620				.	625			L L		2025
193	gag	atc	gag	gag	ttt	ctc	agt	gag	gca	gcg	tgc	atg	aaa	gac	Db-	agc-	2035
		Ile	Glu	Glu	Phe	Leu	Ser	GIu	Ата	Ala		Met	гàг	Asp	Pne		
195						635					640					645	2002
197	cac	cca	aat	gtc	att	cga	ctt	cta	ggt	gtg	tgt	ata	gaa	atg	agc	tct	2083
	His	Pro	Asn	Val		Arg	Leu	Leu	Gly		Cys	He	GIu	Met		ser	
199					650					655					660		
201	caa	ggc	atc	cca	aag	CCC	atg	gta	att	tta	CCC	ttc	atg	aaa	tac	aaa	2131
202	Gln	Gly	Ile	Pro	Lys	Pro	Met	Val	Ile	Leu	Pro	Phe	Met		Tyr	GLY	
203				665					670					675			
						tta											2179
206	Asp	Leu	His	Thr	Tyr	Leu	Leu	Tyr	Ser	Arg	Leu	Glu	Thr	Gly	Pro	Lys	
207			680					685					690				
						aca											2227
210	His	Ile	Pro	Leu	Gln	Thr	Leu	Leu	Lys	Phe	Met	Val	Asp	Ile	Ala	Leu	
211		695					700					705					
213	gga	atg	gag	tat	ctg	agc	aac	agg	aat	ttt	ctt	cat	cga	gat	tta	gct	2275
214	Gly	Met	Glu	Tyr	Leu	Ser	Asn	Arg	Asn	Phe	Leu	His	Arg	Asp	Leu	Ala	
215	710					715					720					725	
217	gct	cga	aac	tgc	atc	acc	cac	ctg	gcc	atc	tta	gca	aga	agc	cca	gca	2323
218	Ala	Arg	Asn	Cys	Ile	Thr	His	Leu	Ala	Ile	Leu	Ala	Arg	Ser	Pro	Ala	
219		_		_	730					735					740		
221	tct	tgc	tct	tac	tgc	agg	ttg	cga	gat	gac	atg	act	gtc	tgt	gtt	gcg	2371
222	Ser	Cys	Ser	Tyr	Cys	Arg	Leu	Arg	Asp	Asp	Met	Thr	Val	Cys	Val	Ala	
223		•		745	-				750					755			
225	qac	ttc	ggc	ctc	tct	aag	aag	att	tac	agt	ggc	gat	tat	tac	cgc	caa	2419
						Lys											
227	-		760			_	_	765	_				770				
229	qqc	cgc	att	gct	aag	atg	cct	gtt	aaa	tgg	atc	gcc	ata	gaa	agt	ctt	2467
230	Gly	Arg	Ile	Ala	Lys	Met	Pro	Val	Lys	Trp	Ile	Ala	Ile	Glu	Ser	Leu	•
231	_	775			_		780					785					
233	qca	gac	cga	gtc	tac	aca	agt	aaa	agt	gat	gtg	tgg	gca	ttt	ggc	gtg	2515
234	Āla	Asp	Arg	Val	Tyr	Thr	Ser	Lys	Ser	Asp	Val	Trp	Ala	Phe	Gly	Val	
	790	-			_	795		_			800					805	
237	acc	atg	tgg	gaa	ata	gct	acg	cgg	gga	atg	act	CCC	tat	cct	ggg	gtc	2563
						Ala											
239			_		810					815					820		
	caq	aac	cat	qaq	atg	tat	gac	tat	ctt	ctc	cat	ggc	cac	agg	ttg	aag	2611
						Tyr											
243				825		-	_	_	830					835			
	caq	ccc	qaa	qac	tgc	ctg	qat	gaa	ctg	tat	gaa	ata	atg	tac	tct	tgc	2659
246	Gln	Pro	Glu	Asp	Cys	Leu	Asp	Glu	Leu	Tyr	Glu	Ile	Met	Tyr	Ser	Cys	
247			840	•	•		-	845		-			850				
	taa	aga		qat	ccc	tta	qac	cqc	ccc	acc	ttt	tca	gta	ttg	agg	ctg	2707
250	Tro	Ara	Thr	Asp	Pro	Leu	Asp	Ara	Pro	Thr	Phe	Ser	Val	Leu	Arg	Leu	
251		855		. ~ P			860	- 3				865			_		
			gaa	aaa	ctc	tta		agt	tta	cct	qac	qtt	cga	aac	caa	gca	2755
254	Gln	Len	Glu	Lvs	Leu	Leu	Glu	Ser	Leu	Pro	Asp	Val	Arq	Asn	Gln	Āla	
	870			-1-		875					880					885	
ددے	570					5,5										_	

Input Set : A:\004974.01057 sequence listing.txt.TXT
Output Set: N:\CRF4\01102005\J519083.raw

258	gac Asp	gtt Val	att Ile	tac Tyr	Val	aat Asn	aca Thr	cag Gln	ttg Leu	ctg Leu 895	gag Glu	agc Ser	tct Ser	gag Glu	ggc Gly 900	ctg Leu ⁻	2803
262	gcc Ala	cag Gln	ggc Gly	Ser	890 acc Thr	ctt Leu	gct Ala	cca Pro	ctg Leu 910	gac	ttg Leu	aac Asn	atc Ile	gac Asp 915	cct	gac Asp	2851
263 265 266 267	tct Ser	ata Ile	att Ile 920	905 gcc Ala	tcc Ser	tgc Cys	act Thr	ccc Pro 925	cgc	gct Ala	gcc Ala	atc Ile	agt Ser 930	gtg	gtc Val	aca Thr	2899
269	gca Ala	gaa Glu 935	att	cat His	gac Asp	agc Ser	aaa Lys 940	cct Pro	cat His	gaa Glu	gga Gly	cgg Arg 945	tac Tyr	atc Ile	ctg Leu	aat Asn	2947
273	Gly	aac	agt Ser	gag Glu	gaa Glu	tgg Trp 955	gaa Glu	gat Asp	ctg Leu	act Thr	tct Ser 960	gcc Ala	ccc Pro	tct Ser	gct Ala	gca Ala 965	2995
277	atc	aca Thr	gct Ala	gaa Glu	aag Lys 970	aac Asn	agt Ser	gtt Val	tta Leu	ccg Pro 975	ggg Gly	gag Glu	aga Arg	ctt Leu	gtt Val 980	agg Arg	3043
281	aat Asn	ggg Gly	gtc Val	tcc Ser 98	tgg Trp	tcc Ser	cat His	tcg Ser	agc Ser	Met	ctg Leu	ccc Pro	ttg Leu	gga Gly 99	Ser	tca Ser	3091
285 286	ttg Leu	ccc Pro	gat Asp	gaa Glu	ctt	ttg Leu	ttt Phe	gct Ala 100	gac Asp	gac	tcc Ser	tca Ser	gaa Glu 101	Gly	tca Ser	gaa Glu	3139
287 289	gtc	ctg		-	qqa	gaggi	tac o			at to	caaa	aaato			attc		3191
	Val	Leu	Met	*	J.J	<i>.</i>	J .	,,,,,			Jouan			J = = =:			
291 293 295 296	ttc: <21:	1019 tgcts 0> SI 1> LI	Met Stagtag EQ II	* ggag NO	aatc	ca a										acc	3248
291 293 295 296 297 298	<21: <21: <21: <21:	101! tgcts 0> SI 1> LI 2> TI 3> OI	Met ta g EQ II ENGTI YPE: RGAN	* ggag NO H: 1 PRT ISM:	aatc : 2 016 Hom		ttgt:	acct								acc	
291 293 295 296 297 298 300 301 302	ttc: <21: <21: <21: <40: Met	1015 tgcts 0> SI 1> LI 2> TS 3> OI 0> SI Gly	Met Gta Gta Gta GTa GEQ II ENGTI YPE: RGAN: EQUE Pro	* ggag NO H: 1 PRT ISM: NCE:	aatc : 2 016 Home 2 Pro	ca a o sa Leu	pien: Pro	acct s Leu	g ato	gttt: Leu 10	ttgg Gly	tati	ttgt:	ctt Leu	ectto Pro 15	Ala	
291 293 295 296 297 298 300 301 302 303 304	<pre>ttc: <21: <21: <21: <40: Met 1 Leu</pre>	1019 tgcts 0> S1 1> L1 2> T3 3> O1 0> S1 Gly Trp	Met Sta 9 Sta 9 EQ II ENGTI YPE: RGAN: EQUE Pro Arg	* Ggag D NO H: 1 PRT ISM: NCE: Ala Arg	aatc : 2 016 Home 2 Pro 5 Ala	ca a o sa Leu Ile	pien Pro Thr	accto s Leu Glu	g ato	Leu 10 Arg	Gly Glu	Leu Glu	Phe Ala	Leu Lys 30	Pro 15 Pro	Ala Tyr	
291 293 295 296 297 298 300 301 302 303 304 305	<pre>ttc: <21: <21: <21: <40: Met 1 Leu Pro</pre>	101! tgcts 0> SI 1> LI 2> T: 3> OI 0> SI Gly Trp Leu	Met Gta G EQ II ENGTI YPE: RGAN: EQUEI Pro Arg Phe 35	* ggagg NO H: 1 PRT ISM: NCE: Ala Arg 20 Pro	aatc : 2 016 Hom 2 Pro 5 Ala	ca a o sa Leu Ile Pro	pien Pro Thr	s Leu Glu Pro	Leu Ala 25 Gly	Leu 10 Arg Ser	Gly Glu Leu	Leu Glu Gln	Phe Ala Thr 45	Leu Lys 30 Asp	Pro 15 Pro His	Ala Tyr Thr	
291 293 295 296 297 298 300 301 302 303 304 305 306 307	<pre>ttc: <21: <21: <21: <40: Met 1 Leu Pro Pro</pre>	101! tgcts 0> SI 1> LI 2> T3 3> OI 0> SI Gly Trp Leu Leu	Met Gta G EQ II ENGTI YPE: RGAN: EQUEI Pro Arg Phe 35	* ggagg NO H: 1 PRT ISM: NCE: Ala Arg 20 Pro	aatc : 2 016 Hom 2 Pro 5 Ala	ca a o sa Leu Ile	pien Pro Thr	s Leu Glu Pro	Leu Ala 25 Gly	Leu 10 Arg Ser	Gly Glu Leu	Leu Glu Gln	Phe Ala Thr 45	Leu Lys 30 Asp	Pro 15 Pro His	Ala Tyr Thr	
291 293 295 296 297 298 300 301 302 303 304 305 306 307 308	21: <21: <21: <40: Met 1 Leu Pro	101! tgcts 0> Si 1> Li 2> T3 3> Oi 0> Si Gly Trp Leu Leu 50	Met Gta g EQ II ENGTI YPE: RGAN: EQUE Pro Arg Phe 35 Leu	* Ggag D NO H: 1 PRT ISM: NCE: Ala Arg 20 Pro	aatc : 2 016 Home 2 Pro 5 Ala Gly Leu	ca a o sa Leu Ile Pro	pien Pro Thr Phe His	S Leu Glu Pro 40 Ala	g ato Leu Ala 25 Gly Ser	Leu 10 Arg Ser	Gly Glu Leu Tyr	Leu Glu Gln Gln	Phe Ala Thr 45 Pro	Leu Lys 30 Asp	Pro 15 Pro His	Ala Tyr Thr	
291 293 295 296 297 298 300 301 302 303 304 305 306 307 308 309 310	21: <21: <21: <40: Met 1 Leu Pro Pro Phe 65 Pro	101! tgcts 0> SI 1> LI 2> T3 3> OI 0> SI Gly Trp Leu 50 Ser	Met Gta g EQ II ENGTI YPE: RGAN: EQUEI Pro Arg Phe 35 Leu Pro	* ggaggo NO H: 1 PRT ISM: NCE: Ala Arg 20 Pro Ser	aatce: 2 016 Home 2 Pro 5 Ala Gly Leu Gln	ca a constant of says and says	piens Pro Thr Phe His 55 Gly	s Leu Glu Pro 40 Ala Arg	Leu Ala 25 Gly Ser	Leu 10 Arg Ser Gly	Gly Glu Leu Tyr Thr	Leu Glu Gln Gln 60 Gly	Phe Ala Thr 45 Pro	Leu Lys 30 Asp Ala Val	Pro 15 Pro His Leu	Ala Tyr Thr Met	
291 293 295 296 297 298 300 301 302 303 304 305 306 307 308 309 310 311 312	ttc: <21: <21: <40: Met 1 Leu Pro Pro Phe 65 Pro Lys	101! tgcts 0> SI 1> LI 2> TS 3> OI 0> SI Gly Trp Leu 50 Ser Gln	Met Gta g EQ II ENGTI YPE: RGAN: EQUE Pro Arg Phe 35 Leu Pro Val	* Ggag. D NO H: 1 PRT ISM: NCE: Ala Arg 20 Pro Ser Thr	aatce: 2 016 Home 2 Pro 5 Ala Gly Leu Gln Ser 85 Gly	ca as Leu Ile Pro Pro Pro Val	piens Pro Thr Phe His 55 Gly	s Leu Glu Pro 40 Ala Arg	Leu Ala 25 Gly Ser Pro	Leu 10 Arg Ser Gly His Pro 90 Ser	Gly Glu Leu Tyr Thr 75 Leu	Leu Glu Gln Gln 60 Gly Pro	Phe Ala Thr 45 Pro Asn	Leu Lys 30 Asp Ala Val Leu	Pro 15 Pro His Leu Ala Ala 95	Ala Tyr Thr Met Ile 80	

Input Set : A:\004974.01057 sequence listing.txt.TXT

Output Set: N:\CRF4\01102005\J519083.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:8; N Pos. 640

Seq#:9; N Pos. 266,390,444,480,557,563,569,581,602

Seq#:15; N Pos. 11,577,971

VERIFICATION SUMMARY

DATE: 01/10/2005

PATENT APPLICATION: US/10/519,083

TIME: 15:45:01

Input Set : A:\004974.01057 sequence listing.txt.TXT

Output Set: N:\CRF4\01102005\J519083.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:733 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:600

L:752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:240

M:341 Repeated in SeqNo=9

L:862 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0

M:341 Repeated in SeqNo=15